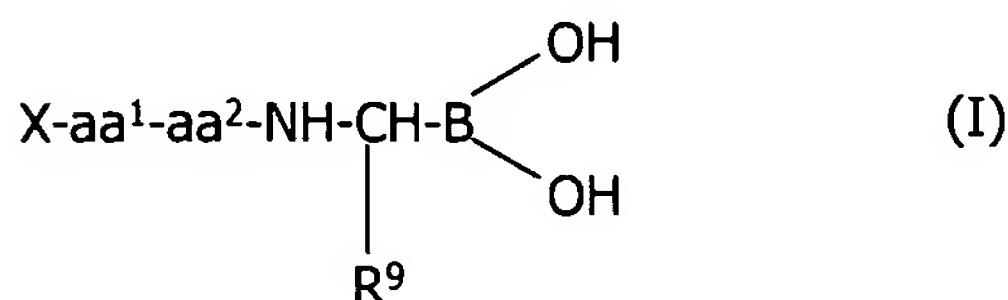


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A compound selected from boronic acids of formula (I), and pharmaceutically acceptable salts, prodrugs and pharmaceutically acceptable prodrug salts thereof:



wherein

X is H (to form NH₂) or an amino-protecting group;

aa¹ is an amino acid residue having a side chain selected from formula (A) and (B):



wherein

a is 0 or 1;

e is 1;

b and d are independently 0 or an integer such that (b+d) is from 0 to 5 or, as the case may be, (b+e) is from 1 to 5;

c is 0 or 1;

D is O or S;

E is a saturated or unsaturated cyclic hydrocarbyl group; and

E¹, E² and E³ are each independently selected from the group consisting of 5-6 membered saturated or unsaturated hydrocarbyl rings, or one of E¹, E² and E³ is hydrogen and the other two are a said hydrocarbyl ring,

and wherein E, E¹, E² and E³ are halogenated;

aa² is a residue of an amino acid which binds to the thrombin S2 subsite; and

R⁹ is a straight chain alkyl group interrupted by one or more ether linkages and in which the total number of oxygen and carbon atoms is 3, 4, 5 or 6 or R⁹ is -(CH₂)_m-W where m is from 2, 3, 4 or 5 and W is -OH or halogen.

Claim 2 (original): A compound of claim 1 wherein R⁹ is an alkoxyalkyl group.

Claim 3 (previously presented): A compound of claim 1 wherein E, E¹, E² and E³ are each independently selected from the group consisting of halogenated 6-membered rings.

Claim 4 (previously presented): A compound of claim 1 wherein a and c are both 0 and (a+b+c+d) and (a+b+c+e) are 1, 2 or 3.

Claim 5 (original): A compound of claim 4 wherein aa¹ is of (R)-configuration, aa² is of (S)-configuration, and the fragment -NHCH(R⁹)-B(OH) is of (R)-configuration.

Claim 6 (canceled).

Claim 7 (previously presented): A compound of claim 1 wherein E, E¹, E² and E³ are fluorinated.

Claims 8-14 (canceled)

Claim 15 (previously presented): A compound of claim 1 which is in the form of a base addition salt of the boronic acid.

Claim 16 (previously presented): A compound of claim 15 which comprises a salt of the peptide boronic acid with an alkali metal or a strongly basic organic nitrogen-containing compound.

Claim 17 (original): A compound of claim 15 which comprises a salt of the boronic acid with a metal.

Claim 18 (previously presented): A compound of claim 17 wherein the metal comprises an alkali metal salt.

Claim 19 (previously presented): A compound of claim 15 which comprises boronate ions derived from the peptide boronic acid and has a stoichiometry consistent with the boronate ions carrying a single negative charge.

Claim 20 (previously presented): A pharmaceutical formulation comprising a compound of claim 1.

Claim 21 (previously presented): A pharmaceutical formulation of claim 20 which is adapted for intravenous administration or for subcutaneous administration.

Claim 22 (previously presented): A pharmaceutical formulation of claim 20 which is adapted for oral administration.

Claims 23-25 (canceled).

Claim 26 (previously presented): A method for making a product, comprising: contacting a boronic acid as defined in claim 1 with a pharmaceutically acceptable base to form the product.

Claim 27 (original): The method of claim 26 which further comprises formulating the product into a pharmaceutical formulation.

Claim 28 (previously presented): A method of inhibiting thrombin in the treatment of a disease, comprising administering to a mammal an effective amount of a compound of claim 1.

Claim 29 (new): A compound of claim 1 wherein;

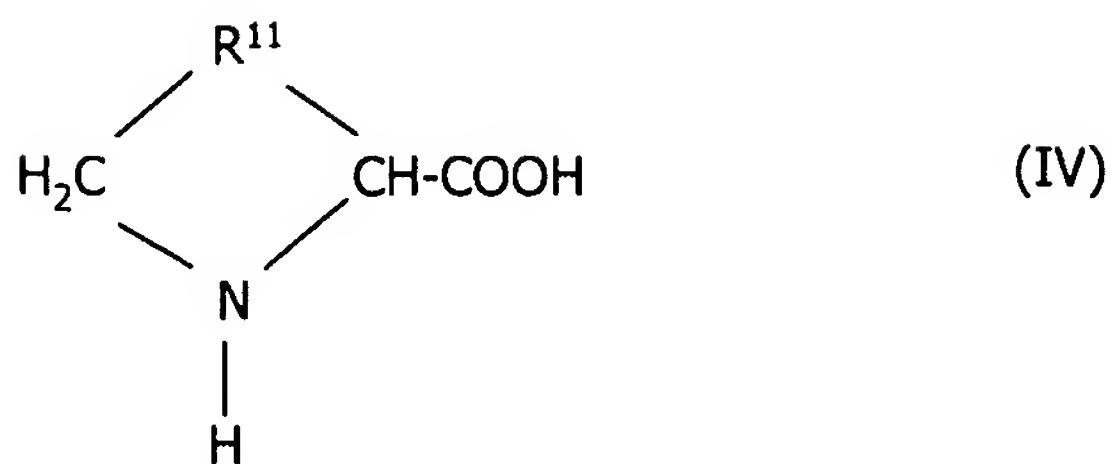
aa¹ is an amino acid having a side chain which is C₁-C₅ alkyl substituted by one or two moieties selected from fluorophenyl and fluorocyclohexyl;

aa² is an imino acid having from 4 to 6 ring members; and

R¹ is a group of the formula -(CH₂)_s-Z, where s is 2, 3 or 4 and Z is -OH, -OMe, -OEt or halogen.

Claim 30 (new): A compound of claim 29 wherein aa¹ is selected from 4-F-Phe, 4-F-Dpa, 4-F-Dcha and 4-F-Cha.

Claim 31 (new): A compound of claim 29 wherein aa² is a residue of an imino acid of formula (IV)



where R^{11} is $-CH_2-$, $-CH_2-CH_2-$, $-CH=CH-$, $-S-CH_2-$, $-S-C(CH_3)_2-$ or $-CH_2-CH_2-CH_2-$, which group, when the ring is 5- or 6- membered, is optionally substituted at one or more $-CH_2-$ groups by from 1 to 3 C_1-C_3 alkyl groups, and optionally aa^2 is an (S)-proline residue.

Claim 32 (new): A compound of claim 29 wherein aa^1 is of (R)-configuration and/or aa^2 is of (S)-configuration and/or the fragment $-NH-CH(R^1)-B(OH)_2$ is of (R)-configuration.

Claim 33 (new): A compound of claim 29 wherein R^1 is 2-bromoethyl, 2-chloroethyl, 2-methoxyethyl, 3-bromopropyl, 3-chloropropyl or 3-methoxypropyl.

Claim 34 (new): A compound of claim 29 where X is $R^6-(CH_2)_p-C(O)-$, $R^6-(CH_2)_p-S(O)_2-$, $R^6-(CH_2)_p-NH-C(O)-$ or $R^6-(CH_2)_p-O-C(O)-$ wherein p is 0, 1, 2, 3, 4, 5 or 6 and R^6 is H or a 5 to 13-membered cyclic group optionally substituted by one or more halogens and/or by 1, 2 or 3 substituents selected from amino, nitro, hydroxy, a C_5-C_6 cyclic group, C_1-C_4 alkyl and C_1-C_4 alkyl containing, and/or linked to the cyclic group through, an in-chain O, the aforesaid alkyl groups optionally being substituted by a substituent selected from halogen, amino, nitro, hydroxy and a C_5-C_6 cyclic group.

Claim 35 (new): A compound of claim 29 wherein the boronic acid is of formula (VIII):



Claim 36 (new): A compound of claim 1 wherein the boronic acid is of formula (VIII):

X-(R)-4-F-Phe-(S)-Pro-Mpg-B(OH)₂ (VIII).

Claim 37 (new): A compound of claim 36, which comprises a salt of the peptide boronic acid with an alkali metal.

Claim 38 (new): A compound of claim 37, wherein the alkali metal is sodium.

Claim 39 (new): A compound of claim 36, wherein X is benzyloxycarbonyl.

Claim 40 (new): A compound of claim 38, wherein X is benzyloxycarbonyl.

Claim 41 (new): A method of inhibiting thrombin in the treatment of a disease, comprising administering to a mammal an effective amount of a compound of claim 38.